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EXAMINER

TIV, BACKHEAN

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/877,548

Applicant(s)

NADEAU ET AL.

Examiner

Backhean Tiv

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Detailed Action***

Claims 1-20 are pending in this application.

***Claim Objections***

Claims 6, 7 are objected to because of the following informalities:

As per claim 6 and 7, recites "the steps of.", there should be a colon instead of a period after "of", to read "the steps of:".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3,4,6,7,13,16,17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3,4,6,7,16,17 recites the limitation of "MIB Views", it is unclear what MIB stands for.

Claim 13 recites the limitation, "find first" function, it is unclear what this function does. The examiner could not find support for this limitation in the specification.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,9,10,14,15,19,20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,785,728 issued to Schneider et al.(Schneider) in view of US Patent 6,055,575 issued to Paulsen et al.(Paulsen).

As per claim 1, Schneider teaches a method of controlling access of network management requests directed to one or more network devices that participate in a virtual private network, the method comprising the computer-implemented steps of: receiving a request to carry out a management protocol operation(col.2, lines 6-24); identifying, among a plurality of managed objects, a subset of objects that requests associated with the virtual private network are permitted to access(col.5, line 61-col.6, line 16); and providing the request with access to only the subset of objects(col.6, lines 30-36).

Schneider does not however, explicitly teaches determining an identifier of a virtual private network in the request.

Paulsen teaches determining an identifier of a virtual private network in the request(col.7, lines 31-39).

Therefore it would have been obvious to one ordinary skilled in the art at the time of the invention to modify the method of Schneider to explicitly add determining an identifier of a virtual private network in the request as taught by Paulsen in order to authenticate the identity of the remote client(Paulsen, col.7, lines 34-35).

One skilled in the art at the time of the invention would have been motivated to combine Schneider and Paulsen in order to provide a method for secure communication between a remote computer and a private computer network(Paulsen, col.1, lines 8-12).

As per claim 2, a method as recited in claim 1, further comprising the steps of providing, at one of the network devices, a mapping of a plurality of identifiers of virtual private networks to corresponding views of subsets of managed objects(Paulsen, Fig.1-4, Schneider, Fig.7-14).Motivation to combine set forth in claim 1.

As per claim 9, a method of controlling access of network management requests directed to one or more network devices that participate in a virtual private network, the method comprising the computer-implemented steps of:

receiving a request to carry out a management protocol operation(Schneider, col.2, lines 6-24), wherein the request contains a virtual private network identifier in a security name value(Paulsen, col.7, lines 31-39); extracting the security name value and determining a protocol operation that is embodied in the request(Schneider, Fig.1, Fig.20); using a view-based access control model(Schneider, Fig.12), matching the security name value to a management information base view that corresponds to the requested operation(Paulsen, col.7, lines 31-45); processing the requested operation only if access is allowed to managed objects in the management information base, based on the matching management information base view(Schneider, col.5, line 61-col.6, line 16, Paulsen, col.7, lines 31-45). Motivation to combine set forth in claim 1.

As per claim 10, a method as recited in Claim 9, further comprising the steps of

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determining whether the request can be satisfied(Schneider, Abstract); extracting the security name value from a context string in the request(Paulsen, col.7, lines 32-45).Motivation to combine set forth in claim 9.

Claims 14, 19, 20 are rejected based on the same rationale as claim 1(see above). Motivation to combine set forth in claim 1.

Claim 15 is rejected based on the same rationale as claim 2(see above).  
Motivation to combine set forth in claim 2.

Claims 3,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,785,728 issued to Schneider et al.(Schneider) in view of US Patent 6,055,575 issued to Paulsen et al.(Paulsen) in further view of RFC 2571, "An Architecture for Describing SNMP Management Frameworks", written by D. Harrington.

Schneider in view of Paulsen teaches all of the limitations of claim 1, however does not explicitly teaches as per claim 3, a method as recited in Claim 1, further comprising the steps of providing, at one of the network devices, a mapping of a plurality of identifiers of virtual private networks to corresponding views of subsets of managed objects, in the form of one or more entries in a view-based access control model table that associate SNMPv3 securityName values to corresponding MIB Views.

Harrington explicitly teaches a mapping of a plurality of identifiers of virtual private networks to corresponding views of subsets of managed objects, in the form of

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one or more entries in a view-based access control model table that associate SNMPv3 securityName values to corresponding MIB Views(pages 15-25).

Therefore it would have been obvious to one ordinary skilled in the art at the time of the invention to modify the method of Schneider in view of Paulsen to explicitly add a mapping of a plurality of identifiers of virtual private networks to corresponding views of subsets of managed objects, in the form of one or more entries in a view-based access control model table that associate SNMPv3 securityName values to corresponding MIB Views as taught by Harrington in order provide the framework for SNMPv3(Harrington, page 14).

One skilled in the art at the time of the invention would have been motivated to combine Schneider and Paulsen and Harrington in order to provide a method for improvement in the SNMP(Harrington, page 1).

Claim 16 is rejected based on the same rationale as claim 3(see above).

Motivation to combine set forth in claim 3.

Claims 4,8,11,17 are rejected under 35 U.S.C. 103(a) as being obvious over US Patent 6,785,728 issued to Schneider et al.(Schneider) in view of US Patent 6,055,575 issued to Paulsen et al.(Paulsen) in further view of RFC 2575, "View-based Access Control Model for the Simple Network Management Protocol", written by B.Wijnen.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

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only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Schneider in view of Paulsen teaches all the limitations of claim 1, however does not explicitly teaches as per claim 4, a method as recited in Claim 1, further comprising the steps of providing, at one of the network devices, one or more entries in a view-based access control model table that associate SNMPv3 securityName values to corresponding MIB Views, wherein each of the securityName values is associated with a virtual private network, and wherein the corresponding MIB Views represent access control policies applicable to the associated virtual private networks.



Wijnen teaches at one of the network devices, one or more entries in a view-based access control model table that associate SNMPv3 securityName values to corresponding MIB Views, wherein each of the securityName values is associated with a virtual private network, and wherein the corresponding MIB Views represent access control policies applicable to the associated virtual private networks(pages 5-10).

Therefore it would have been obvious to one ordinary skilled in the art at the time of the invention to modify the method of Schneider in view of Paulsen to explicitly add one of the network devices, one or more entries in a view-based access control model table that associate SNMPv3 securityName values to corresponding MIB Views, wherein each of the securityName values is associated with a virtual private network, and wherein the corresponding MIB Views represent access control policies applicable to the associated virtual private networks as taught by Wijnen in order to restrict access of the rights of some groups to only a subset of the management information(Wijnen, page 4)

One skilled in the art at the time of the invention would have been motivated to combine Schneider and Paulsen and Wijnen in order to provide a method for remotely managing the configuration parameters for the View-based Access Control Model.

As per claim 8, a method as recited in Claim 1, further comprising the steps of: providing, at a network management station that is communicatively coupled to the network devices, a mapping of a plurality of virtual private network identifiers(Paulsen, Fig.2) to SNMPv3 securityNames(Wijnen, pages 3-10); providing, at the network management station, an executable process that associates a virtual private network

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identifier with each SNMP request that is issued by the network management station to the network devices(Wijnen, pages 3-10). Motivation to combine set forth in claim 4.

As per claim 11, a method as recited in Claim 10, wherein the matching step further comprises the steps of determining whether the security name is in a view-based access control model table; rejecting and returning the request when the security name is not found in the view based access control model table(Wijnen, pages 3-10).

Motivation to combine set forth in claim 4.

Claim 17 is rejected based on the same rationale as claim 4(see above).

Motivation to combine set forth in claim 4.

Claims 5,12,18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,785,728 issued to Schneider et al.(Schneider) in view of US Patent 6,055,575 issued to Paulsen et al.(Paulsen) in further view of US Patent 6,614,791 issued to Luciani et al.(Luciani).

Schneider in view of Paulsen teaches all the limitations of claim 1, however does not explicitly teach as per claim 5, a method as recited in Claim 1, further comprising the steps of providing, at one of the network devices, a mapping of a plurality of identifiers of virtual private networks to corresponding views of subsets of managed objects, and wherein the steps of identifying a subset of objects and providing the request with access comprise the steps of: determining whether the identifier from the

request is in the mapping; when the identifier from the request is in the mapping:  
identifying a management information base, variable referenced in the request;  
based on one or more views referenced in the mapping, determining whether a  
protocol operation of the request is allowed for the variable; dispatching information  
identifying the variable and the protocol operation to a code implementation of the  
protocol operation only when the protocol operation is allowed for the variable.

Luciani teaches the steps of providing, at one of the network devices, a mapping  
of a plurality of identifiers of virtual private networks to corresponding views of subsets  
of managed objects, and wherein the steps of identifying a subset of objects and  
providing the request with access comprise the steps of: determining whether the  
identifier from the request is in the mapping(col.2, lines 45-67); when the identifier from  
the request is in the mapping(col.2, lines 53-61): identifying a management information  
base, variable referenced in the request(col.2, lines 53-61); based on one or more views  
referenced in the mapping, determining whether a protocol operation of the request is  
allowed for the variable(col.2, lines 32-40); dispatching information identifying the  
variable and the protocol operation to a code implementation of the protocol operation  
only when the protocol operation is allowed for the variable(col.2, line 65-col.3, line 5).

Therefore it would have been obvious to one ordinary skill in the art at the time of  
the invention to modify the method of Schneider in view of Paulsen to add determining  
whether the identifier from the request is in the mapping; when the identifier from the  
request is in the mapping: identifying a management information base, variable  
referenced in the request; based on one or more views referenced in the mapping,

determining whether a protocol operation of the request is allowed for the variable;  
dispatching information identifying the variable and the protocol operation to a code  
implementation of the protocol operation only when the protocol operation is allowed for  
the variable as taught by Luciani in order to support different protocols in a  
communication network(Luciani, col.1, lines 21-25).

One ordinary skill in the art at the time of the invention would have been  
motivated to combine Schneider, Paulsen, and Luciani to provide a method for a shared  
communication network by multiple consumers(Luciani, col.2, lines 21-25).

Claims 12, 18 are rejected based on the same rationale as claim 5(see above).  
Motivation to combine set forth in claim 5.

Claims 6,7,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over  
US Patent 6,785,728 issued to Schneider et al.(Schneider) in view of US Patent  
6,055,575 issued to Paulsen et al.(Paulsen) in further view of US Patent 6,664,978  
issued to Kekic et al.(Kekic).

Schneider in view of Paulsen teaches all the limitations of claim 1, and further  
teaches dispatching information identifying the variable and the protocol operation to a  
code implementation of the protocol operation only when the protocol operation is  
allowed for the variable(Paulsen, col.9, line 33-col.12, line 67), however does not  
explicitly teach as per claim 6, a method as recited in claim 1, further comprising the  
steps of providing, at one of the network devices, a mapping of a plurality of identifiers

of virtual private networks to corresponding views of subsets of managed objects, in the form of one or more entries in a view-based access control model table that associate security name values to corresponding MIB Views, and wherein the steps of identifying a subset of objects and providing the request with access comprise the steps of: determining whether the identifier from the request is in the view-based access control model table; when the identifier from the request is in the view-based access control model table: identifying a management information base variable referenced in the request; based on one or more MIB Views referenced in the view-based access control model table, determining whether a protocol operation of the request is allowed for the variable.

Kekic teaches determining whether the identifier from the request is in the view-based access control model table(col.3, lines 20-22, col.4, lines 32-49); when the identifier from the request is in the view-based access control model table: identifying a management information base variable referenced in the request(col.4, lines 32-49); based on one or more MIB Views referenced in the view-based access control model table, determining whether a protocol operation of the request is allowed for the variable(col.4, lines 38-42);

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention to modify the method of Schneider in view of Paulsen to add determining whether the identifier from the request is in the view-based access control model table; when the identifier from the request is in the view-based access control model table: identifying a management information base variable referenced in the request; based on

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one or more MIB Views referenced in the view-based access control model table, determining whether a protocol operation of the request is allowed for the variable as taught by Kekic in order to manage heterogeneous computer network elements(Kekic, col.1, lines 18-20).

One ordinary skill in the art at the time of the invention would be motivated to combine Schneider, Paulsen, and Kekic to provide a method to manage different devices in a network(Kekic, col.1, lines 42-50).

Claim 7 is rejected based on the same rationale as claim 6 (see above).

Motivation to combine set forth in claim 6.

As per claim 13. The method as recited in Claim 10, further comprising the steps of determining whether the security name is in a view-based access control model table; when the security name is found in the view-based access control model table: identifying a management information base variable referenced in the request(Kekic, col.4, lines 32-49); based on one or more views referenced in the view-based access control model table, determining whether the protocol operation is allowed for the variable(Kekic, col.4, lines 38-42); dispatching information identifying the variable and the protocol operation to a code implementation of the protocol operation only when the protocol operation is allowed for the variable(Paulsen, col.9, line 33-col.12, line 67); using a "find first" function, determining whether a virtual private network identifier is referenced in the request(Kekic, col.4, lines 32-39), processing the request using managed information objects in a default view when no virtual private network identifier is referenced in the request(Kekic, Figs.3-9D), and processing the request using

management information objects in a view corresponding to the virtual private network identifier only when a virtual private network identifier is referenced in the request(Kekic, col.4, lines 32-39).Motivation to combine set forth in claim 6.


### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Backhean Tiv whose telephone number is (571)272-3941. The examiner can normally be reached on 9 A.M.-12 P.M. and 1 -6 P.M.  
Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
ZARNI MAUNG  
PRIMARY EXAMINER